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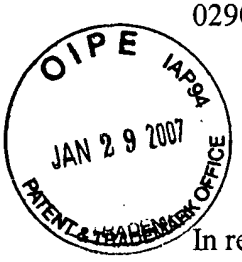
02908.000005. PATENT APPLICATION



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:	)	
	:	Examiner: Philip C. Lee
SEBASTIEN JEAN, et al.	)	
	:	Group Art Unit: 2152
Application No.: 09/853,767	)	
	:	Technology Center: 2100
Filed: May 14, 2001	)	
	:	
For: NETWORK DEVICE MIMIC SUPPORT	)	
	:	January 26, 2007

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLACEMENT SUMMARY SECTION OF APPEAL BRIEF

Sir:

In response to the Notification of Non-Compliant Appeal Brief dated January 4, 2007, Applicants submit herewith a revised Summary of Claimed Subject Matter, to replace the Summary presented in the Appeal Brief dated November 21, 2006.

See MPEP § 1205.03.

(5) SUMMARY OF CLAIMED SUBJECT MATTER

In accordance with MPEP § 1205.02, elements recited in the claims are identified below with corresponding exemplary elements described in the specification. However, it should be understood that the claimed elements are not limited to the embodiment discussed below, or to the embodiments described in the specification.

Appellants' invention concerns a method for mimicking network devices. A representative embodiment of a network environment in which Appellants' invention may be practiced is shown in Figure 1, which is reproduced below.

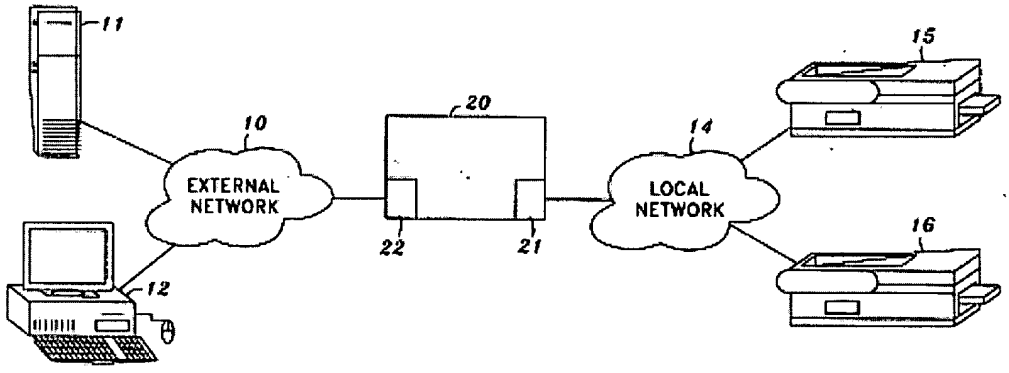


FIG. 1

In Figure 1, device 20 is a mimic device which performs the methods of the invention. Mimic device 20 interfaces between external network 10 via network interface card 22 and local network 14 via network interface card 21. The local network 14 includes legacy or other target devices such as printers 15 and 16. The external network 10 includes client devices such as network server 11 and workstation 12, which seek access to functionality offered by the target devices.

One purpose of the invention is to provide added or improved functionality over that provided inherently in the target device itself. For example, the target device might be a legacy device that lacks a more modern functionality, such as a legacy printer that lacks enterprise printing functionality like secure printing or e-mail printing. For this purpose, mimic device 20 acts as a middle-man between external network 10 and local network 14, and acts transparently on behalf of target devices in response to requests for functionality that the target devices might not inherently support.

Independent Claim 1

The method of independent Claim 1 is performed in a computing device, such as mimic device 20, having first and second network interface cards, such as first network interface card 22 connecting the computing device to an external network 10, and second network interface card 21 connecting the computing device to a local network 14. (See Specification, page 12, line 31 to page 13, line 6).

In the method of Claim 1, mimic device 20 receives an incoming message from a client network device residing on the external network 10, such as server 11 or workstation 12. The incoming message is addressed to a network address of a target network device residing on the local network 14. That is, the incoming message is addressed to the network address of legacy network printer 15 or legacy network printer 16. (See Specification, page 6, lines 27 to 32, page 30, line 7 to page 31, line 32 and Figure 8A).

Thus, while the client network device on the external network sends a message addressed to the network address of a target device on the local network, it is mimic device 20 which actually receives the message. Specifically, first network interface card 22 and second network interface card 21 allow mimic device 20 to act as a "controlled bridge" receiving messages between external network 10 and local network 14. (See Specification, page 12, line 31 to page 13, line 2). In this way, mimic device is able to "act[] on behalf of legacy network devices by responding to network messages addressed to the legacy network devices." (Specification, page 44, lines 17 to 20; See also Specification, page 3, lines 27 to 30).

In one example, these messages are addressed to the IP address of a target device. In representative examples from the specification, mimic device 20 "receiv[es] an incoming message from a client network device residing on the external network, the message being directed to an IP address of a designated one of the plurality of legacy network printers." (Specification, page 6, lines 27 to 32). In another example, "the mimic device intercepts requests from a client on the external network for e-mail printing from a network printer on the local network." (Specification, page 11, lines 18 to 21.) In yet another example, "mimic device 20 [could] act on behalf of network messages from external network 10 which are directed to IP addresses assigned to the printers on [a] USB local network." (Specification, page 45, lines 10 to 15).

Mimic device 20 thus acts as a bridge between external network 10 and local network 14 and intercepts messages from client network devices (such as server 11) on the external network which are addressed to legacy or other target devices (such as

printer 15) on the local network. Therefore, while a client network device (such as server 11) may send a message addressed to the IP address of a target device (such as printer 15) on the local network, it is mimic device 20 which receives the message.

In Claim 1, once the message is received, mimic device 20 determines if an application module residing in the mimic device is configured to process a functionality requested by the incoming message. For example, mimic device 20 might include an e-mail printing application module 71 and a secure printing application module 70 as shown in Figure 3.

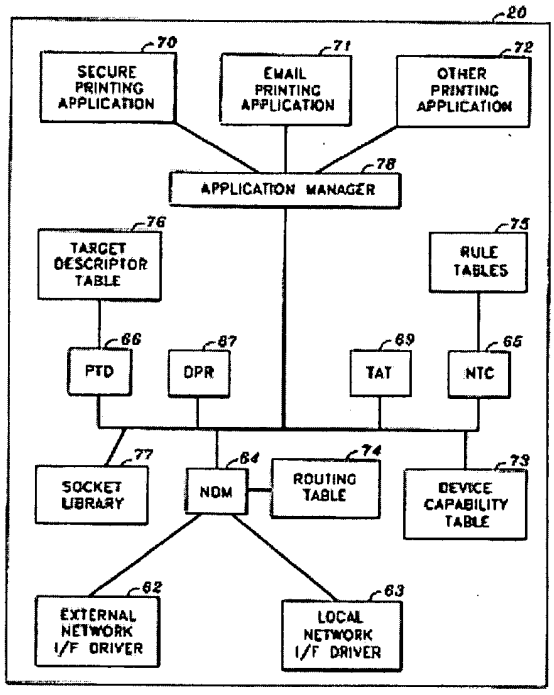


FIG. 3

Mimic device 20 determines if one or more of those modules is configured to process the functionality requested by a message. (See Specification, page 4, lines 15 to 21, page 26, line 24 to page 27, line 16 and page 30, line 1 to page 31, line 32). Thus, the

method of Claim 1 determines if an application module in mimic device 20 can process a requested functionality, and it makes this determination independently of whether the target device can or can not also provide this functionality. (See, e.g., Specification, page 4, lines 19 to 21.)

Claim 1 further provides that if one of the application modules in mimic device 20 is configured to process the functionality requested by the incoming message, mimic device 20 redirects the message to the application module. (See Specification, page 7, lines 1 to 7 and page 38, lines 1 to 27). Thus, mimic device 20 can essentially override outdated functionality in a target device, since any message which an application module is configured to process is redirected to the application module, regardless of the capabilities of the target device. Accordingly, the functionality of the target devices can be augmented repeatedly by simply upgrading the application modules in mimic device 20, rather than updating or upgrading each individual target device on the local network. (See, e.g., Specification, page 44, lines 8 to 22).

On the other hand, Claim 1 also provides that if an application module is not configured to processed the functionality in the incoming message, mimic device 20 passes the incoming message through the local network to the target network device residing on the local network. (See Specification, page 37, line 32 to page 38, line 17).

Independent Claim 33

The method of independent Claim 33 is performed in a computing device, such as mimic device 20, having first and second network interface cards, such as first

network interface card 22 connecting the computing device to an external network 10 and second network interface card 21 connecting the computing device to a local network 14. (See Specification, page 12, line 31 to page 13, line 6).

In the method of Claim 33, mimic device 20 discovers a plurality of target network devices on local network 14, such as printers 15 and 16, by detecting messages on local network 14 from each of the plurality of target network devices. (See Specification, page 6, lines 17 to 20, page 23, line 1 to page 24, line 10 and Figure 5.)

Additionally, in Claim 33, mimic device 20 creates a rule in a rules table for each of the discovered target network devices. Rules tables are shown at Figure 3, which was reproduced above. Each rule contains the IP address of the corresponding target network device and indicates whether an application module in the computing device is configured to perform a function on behalf of the corresponding target network device. As a concrete example, the rules tables include IN table 110, which is discussed at page 30 and shown in Figure 8A. (See Specification, page 5, lines 17 to 25, page 30, line 1 to page 31, line 32 and page 34, line 17 to page 35, line 7; see also Figures 8A and 12).

IN TABLE 110

120 TABLE	121 TIMEOUT	122 SOURCE IP	124 DESTINATION IP	125 SOURCE PORT	126 DESTINATION PORT	128 ACTION
IN	STATIC	[LOCAL]	*	[DYN]	*	BRANCH
IN	A\10 MIN	126.18.95.6	85.210.1.12	49651	60	REDIRECT
IN	STATIC	*	*	*	*	ACCEPT

FIG. 8A

As claimed in Claim 33, mimic device 20 receives an incoming message from a client network device residing on the external network 10, such as server 11 or workstation 12. The incoming message is addressed to an IP address of a designated one of the plurality of target network devices. (See Specification, page 6, lines 27 to 32 and page 30, line 7 to page 31, line 32; see also page 11, lines 18 to 21). That is, the incoming message is addressed to the IP address of legacy network printer 15 or legacy network printer 16.

Thus, while the client network device on the external network sends a message addressed to the IP address of a target device on the local network, it is mimic device 20 which actually receives the message, as discussed in detail above in connection with the method of Claim 1. Mimic device 20 therefore acts as a bridge between external network 10 and local network 14, and intercepts messages from client network devices (such as server 11) on the external network which are addressed to the IP address of legacy or other target devices (such as printer 15) on the local network.

In Claim 33, once the message is received, mimic device 20 determines if the incoming message requests a functionality that the application module is configured to perform, based at least in part on the rule corresponding to the designated target network device. (See Specification, page 6, line 32 to page 7, line 2, page 30, line 1 to page 31, line 32 and Figure 8A). Thus, the method of Claim 33 determines if an application module in mimic device 20 is configured to perform a requested functionality, and it makes this determination independently of whether the target device can or can not also provide this functionality. (See, e.g., Specification, page 4, lines 19 to 21.)

Claim 33 further provides that if that the incoming message requests a functionality that the application module is configured to perform, mimic device 20 redirects the incoming message to the application module, which performs the requested functionality in response to the incoming message. (See Specification, page 7, lines 1 to 7 and page 38, lines 1 to 27).

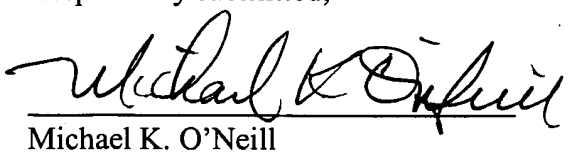
Thus, in the method of Claim 33, mimic device 20 can essentially override outdated functionality in a target device, since any message which an application module is configured to perform is redirected to the application module and performed by the application module, regardless of the capabilities of the target device. Accordingly, as discussed above in connection with Claim 1, the functionality of the target devices can be augmented repeatedly by simply upgrading the application modules in mimic device 20, rather than updating or upgrading each individual target device on the local network.

On the other hand, Claim 33 also provides that if the incoming message does not request a functionality that the application module is configured to perform, mimic device 20 passes the incoming message through the local network to the designated target network device. (See Specification, page 7, lines 7 to 11 and page 37, line 32 to page 38, line 17).

By virtue of the foregoing arrangements, the mimic device 20 may act as a "middle man" to augment the functional capabilities of legacy devices or other target devices on a network which lack a desired functionality, ordinarily without the need to add potentially expensive or inefficient software or hardware upgrades to each individual device.

Applicants' undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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